Securing HPE GreenLake Flex Solution built for Thales CipherTrust Enterprise Key Management

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Building a future we can all trust

The Business Challenge

Modern enterprises are required to be nimble as they design workload deployments. Private, public, multi-, and hybrid-cloud designs offer the flexibility and cost savings needed to meet current demands and cost requirements. For some, this deployment choice may conflict with the controls they have traditionally placed around their data. Cloud migration poses challenges to data management, protection, and sovereignty, regardless of the architecture. Is it possible to orchestrate and manage these workload designs and still meet security and compliance requirements?

Considerations include how to manage data sprawl with core enterprise and customer data stored in multiple data silos, the ever-increasing sophistication of hackers and malware threats, and the need to meet important global regulatory mandates that require maintaining sovereignty over all sensitive data.

The Solution

Thales and Hewlett Packard Enterprise have partnered to help HPE GreenLake customers meet the needs of deployment flexibility while maintaining data security and sovereignty. Combining HPE GreenLake Flex Solution built for Thales CipherTrust Enterprise Key Management and optional Thales Luna Hardware Security Modules (HSMs) as a root of trust, the customer's IT and DevSecOps teams are enabled to deploy as needed while meeting regulatory and data security requirements.

HPE GreenLake is a portfolio of cloud and as-a-service solutions that deliver a cloud experience wherever your apps and data live – edge, data center, colocations, and public clouds. Available on a pay-as-you-go basis, HPE GreenLake runs on an open and more secure edge-to-cloud platform with the flexibility a modern enterprise needs. HPE GreenLake provides a common set of capabilities including user authentication, role-based access control, metering and billing, and more. Apps and services run on top of the platform, all leveraging this common functionality to provide a unified experience.

As part of the HPE GreenLake Flex Solution offerings, Thales CipherTrust Data Security Platform (CDSP) provides HPE GreenLake customers with a centralized Enterprise Key Management (EKM) solution that delivers a robust, standards-based platform for managing encryption keys to protect data in disparate storage repositories across the enterprise. It simplifies the administrative challenges around encryption key management to ensure that keys are secure and provisioned to authorized encryption services.

The CipherTrust Key Management solutions are further complemented by a broad suite of data protection offerings including Encryption, Tokenization, Secrets Management, and Hardware Security Modules (HSMs).

Key Benefits

- Offer centralized enterprise key management throughout the key lifecycle
- Store the master encryption keys with a high assurance root-of-trust
- Lower key management complexity with single-pane-of-glass simplicity
- Protect mission-critical secrets across cloud workloads
- Accelerate time to compliance by protecting personally identifiable information (PII)

With the Thales CipherTrust portfolio of solutions, HPE GreenLake customer benefits include improved data protection and security, stronger key control and lower key management complexity, enhanced operational efficiency and reduced IT security costs, and helping to address data sovereignty and regulatory compliance.

Value for HPE Greenlake Customers

Regulatory compliance

Stronger key control

Reduced IT security costs

Data sovereignty

Improved data protection and security

Enhanced efficiency / lower key management complexity

Solution Features and Benefits

Thales CipherTrust Manager for HPE GreenLake

Thales CipherTrust Manager is the industry-leading enterprise key management system, enabling organizations to centrally manage encryption keys, provide granular access control, and apply consistent security policies. As the central management point for the CipherTrust Data Security Platform (CDSP), CipherTrust Manager provides a unified management console that makes it easy to discover and classify data, and to protect sensitive data wherever it resides.

Thales Luna Hardware Security Module for HPE GreenLake

Thales Luna Hardware Security Modules (HSMs) can be leveraged as a secure root of trust for **CipherTrust Manager** to create a holistic data security solution.

Luna HSMs protect cryptographic keys and act as trust anchors that also protect the cryptographic infrastructure of some of the most security-conscious organizations and governments in the world by securely managing, processing, and storing those keys inside a FIPS-validated tamper-resistant device. Luna HSMs can be deployed on-premises, in the cloud, as a service, or across multiple environments to create a hybrid HSM solution. Luna HSMs offer the most certifications in the industry and Luna Network and PCIe HSMs are the first HSMs to receive FIPS 140-3 Level 3 validation.

Thales CipherTrust Cloud Key Management for HPE GreenLake

Whether HPE GreenLake is deployed on-premises, cloud-based, hybrid- or multi-cloud, implementing an External Key Management (EKM) system is critical to maintaining data sovereignty. Thales

CipherTrust Cloud Key Management (CCKM) acts as an EKM Service (EKMS). Offering centralized lifecycle management for BYOK, HYOK, and cloud-native encryption keys, CCKM adds controls that simplify and streamline the Cloud Administrator's job so that organizations can efficiently meet compliance and HPE's "Shared Security Model" practices by generating, storing, managing, and maintaining data encryption keys externally within a secure environment.

Additional Thales Data Security Products for HPE GreenLake

With an industry-leading portfolio of data protection products, Thales also offers advanced Encryption Tokenization and Secrets Management solutions for HPE GreenLake.

As part of the **CipherTrust Data Security Platform** suite for HPE GreenLake, Thales offers a broad range of Encryption products, including CipherTrust Transparent Encryption, CipherTrust Database Protection, and CipherTrust Application Data Protection, that help to deliver unmatched data protection for HPE GreenLake customers, by securing databases, applications, file servers, and storage across on-premises, cloud, and hybrid environments.

Furthermore, CipherTrust Tokenization adds either Vaulted or Vaultless Tokenization capabilities to data stored on HPE GreenLake, maintaining personally identifiable information (PII) protection and accelerating time to compliance.

Thales CipherTrust Secrets Management (CSM) is a state-of-the-art Secrets Management solution, powered by the Akeyless, which protects and automates mission-critical secrets within the HPE GreenLake environment, across DevOps tools and cloud workloads including secrets, credentials, certificates, API keys, and tokens.
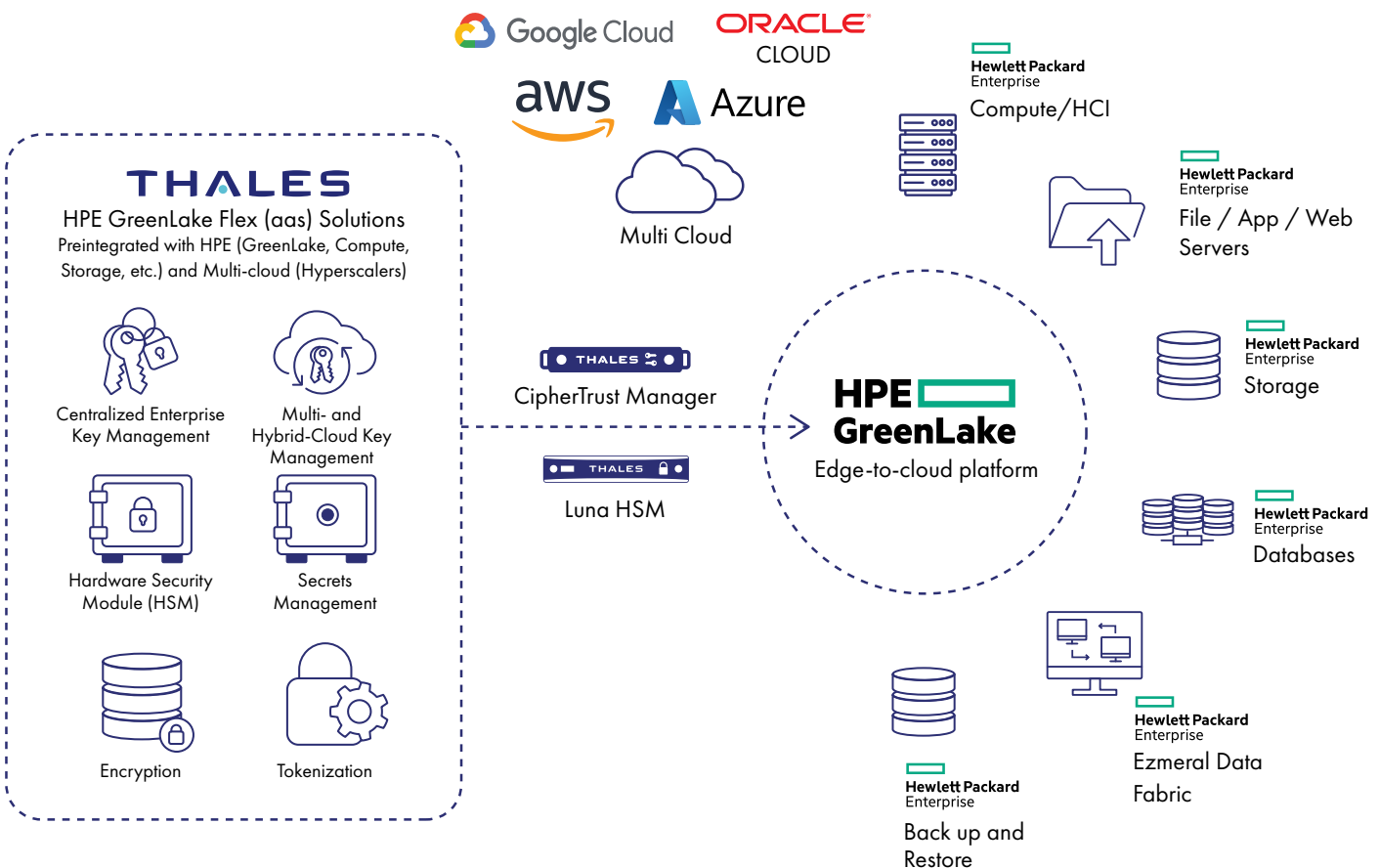
In Summary

Delivering on data protection across the HPE GreenLake environment, Thales' CipherTrust Data Security Platform offers the broadest set of key management, encryption, and tokenization solutions to protect your data at rest and in transit in files, folders, applications, and databases across the complete HPE GreenLake edge-to-cloud deployment, consisting of traditional on-prem, multi-cloud or virtualized environments, as well as enterprise-grade secrets management to protect and automate access to secrets across DevOps tools and cloud workloads.

About HPE

HPE is the edge-to-cloud company that helps organizations accelerate outcomes by unlocking value from all of their data, everywhere. Built on decades of reimagining the future and innovating to advance the way people live and work, HPE delivers unique, open, and intelligent technology solutions, with a consistent experience across all clouds and edges, to help customers develop new business models, engage in new ways, and increase operational performance.

About Thales

Today's businesses and governments depend on the cloud, data and software to deliver trusted digital services. That is why the most recognized brands and organizations around the world, rely on Thales to help them protect sensitive information and software wherever it is created, stored or accessed – from the cloud and data centers to devices and across networks. As the global leader in data security, identity & access management, and software licensing, our solutions enable organizations to move to the cloud securely, achieve compliance with confidence, create more value from their software and deliver seamless digital experiences for millions of consumers every day.